#### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

## WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-026027 Address: 333 Burma Road **Date Inspected:** 27-Jul-2011

City: Oakland, CA 94607

**OSM Arrival Time:** 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name:** N/A **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A Yes N/A N/A **Electrode to specification:** No **Weld Procedures Followed:** Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:** 

34-0006 **Bridge No: Component: OBG** Trial Assembly

### **Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector Mr. S. Manjunath Math was present during the time noted above for observations relative to the work being performed.

This QA Inspector randomly observed the following work in progress:

Orthotropic Box Girder (OBG) at Trial Assembly Areas

Segment 13AE (Triangular Plate)

This QA Inspector witnessed final bolt tension verification on bolts connecting triangular plate connecting the stiffeners of Floor Beam and full height Longitudinal Diaphragm at elevations 1772 mm and at 3332mm from Bottom Panel at work point E4 (Cross Beam side) at Panel Points (PP) 120 (east side) for Segment 13AE. Inspected the bolt tensioning on a random basis and found the tension to be in general compliance. Inspection was performed against the Notification No. 00715 dated July 27, 2011.

The bolt sizes used were M22 x 80 RC Lot # DHGM220140 and the final torque value established was 380 N-m.

The bolt sizes used were M22 x 85 RC Lot # DHGM220121 and the final torque value established was 393 N-m.

The bolt sizes used were M22 x 90 RC Lot # DHGM220141 and the final torque value established was 353 N-m.

# WELDING INSPECTION REPORT

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The Manual Torque wrench used was Serial No. XO2-666.

Segment 13BE (Triangular Plate)

This QA Inspector witnessed final bolt tension verification on bolts connecting triangular plate connecting the stiffeners of Floor Beam and full height Longitudinal Diaphragm at elevations 1772 mm and at 3332mm from Bottom Panel at work point E4 (Cross Beam side) at Panel Points (PP) 120.5, PP 121, PP 121.5, PP 122 (east and west side) for Segment 13BE. Inspected the bolt tensioning on a random basis and found the tension to be in general compliance. Inspection was performed against the Notification No. 00715 dated July 27, 2011.

The bolt sizes used were M22 x 80 RC Lot # DHGM220140 and the final torque value established was 380 N-m.

The bolt sizes used were M22 x 85 RC Lot # DHGM220121 and the final torque value established was 393 N-m.

The bolt sizes used were M22 x 90 RC Lot # DHGM220141 and the final torque value established was 353 N-m.

The Manual Torque wrench used was Serial No. XO2-666.

Segment 13CE (Triangular Plate)

This QA Inspector witnessed final bolt tension verification on bolts connecting triangular plate connecting the stiffeners of Floor Beam and full height Longitudinal Diaphragm at elevations 1772 mm and at 3332mm from Bottom Panel at work point E4 (Cross Beam side) at Panel Points (PP) 122.5, PP 123 and PP 123.5 (east and west side) for Segment 13CE. Inspected the bolt tensioning on a random basis and found the tension to be in general compliance. Inspection was performed against the Notification No. 00715 dated July 27, 2011.

The bolt sizes used were M22 x 80 RC Lot # DHGM220140 and the final torque value established was 380 N-m.

The bolt sizes used were M22 x 85 RC Lot # DHGM220121 and the final torque value established was 393 N-m.

The bolt sizes used were M22 x 90 RC Lot # DHGM220141 and the final torque value established was 353 N-m.

The Manual Torque wrench used was Serial No. XO2-666.

Segment 13AE and Segment 13BE (Triangular Plate)

This QA Inspector witnessed final bolt tension verification on bolts connecting Angle Splice plates with triangular plate connecting the stiffeners of Floor Beam and full height Longitudinal Diaphragm at elevations 1772 mm and at 3332mm from Bottom Panel at work point E4 (Cross Beam side) at Panel Points (PP) 120 and 121(east side) for Segment 13AE to Segment 13CE. Inspected the bolt tensioning on a random basis and found the tension to be in general compliance. Inspection was performed against the Notification No. 00715 dated July 27, 2011.

The bolt sizes used were M27 x 95 RC Lot # DHGM270034 and the final torque value established was 640 N-m.

# WELDING INSPECTION REPORT

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The Manual Torque wrench used was Serial No. XO2-666.

Segment 13B and Segment 13BE (Triangular Plate)

This QA Inspector witnessed final bolt tension verification on bolts connecting Angle Splice plates with triangular plate connecting the stiffeners of Floor Beam and full height Longitudinal Diaphragm at elevations 1772 mm and at 3332mm from Bottom Panel at work point E4 (Cross Beam side) at Panel Points (PP) 120 (east side) for Segment 13AE to Segment 13CE. Inspected the bolt tensioning on a random basis and found the tension to be in general compliance. Inspection was performed against the Notification No. 00715 dated July 27, 2011.

The bolt sizes used were M27 x 95 RC Lot # DHGM270034 and the final torque value established was 640 N-m.

The Manual Torque wrench used was Serial No. XO2-666.

General Note: Please reference the pictures attached for more comprehensive details.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.





## **Summary of Conversations:**

No relevant conversations were reported on this date.

#### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 15000422372, who represents the Office of Structural Materials for your project.

Inspected By:	Math, Manjunath	Quality Assurance Inspector
Reviewed By:	Miller,Mark	QA Reviewer